

**AMENDMENTS TO THE CLAIMS:**

Please cancel claims 1 – 17, and add new claims 18 – 49.

Claims 1 - 17 (Canceled)

18. (New) A fuel for feeding spark ignition engines, in particular those fitted in aircraft, having an F4 octane number at least equal to 130 and a reduced level of aromatic compounds, said fuel containing substantial quantities of a first hydrocarbons base (B1) essentially constituted by isoparaffins comprising 6 to 9 carbon atoms, and a second hydrocarbons base (B2) also constituted by isoparaffins comprising 4 or 5 carbon atoms and, optionally, by other hydrocarbons and additives customary for this type of fuel, in a quantity and quality sufficient for the fuel to comply with the specifications in force, wherein it contains at least 5.0% by volume, and preferably at least 10.0% by volume, of a hydrocarbons base (B3) essentially composed of cycloparaffins comprising 6 to 8 carbon atoms, and in that the ratio R of the quantities by volume (B1+B2)/B3 is greater than 2.0.

19. (New) A fuel according to claim 18, wherein the ratio R of the quantities by volume (B1+B2)/B3 is comprised between 2.3 and 19.0.

20. (New) A fuel according to claim 18, wherein the ratio K of the quantities by volume B1/B2 is greater than 2.0.

21. (New) A fuel according to claim 19, wherein the ratio K of the quantities by volume B1/B2 is greater than 2.0.

22. (New) A fuel according to claim 20, wherein the ratio K of the quantities by volume B1/B2 is comprised between 2.3 and 10.6.

23. (New) A fuel according to claim 21, wherein the ratio K of the quantities by volume B1/B2 is comprised between 2.3 and 10.6.

24. (New) A fuel according to claim 18, wherein the cycloparaffinic hydrocarbons cut (B3) is essentially constituted by cyclohexanes.

25. (New) A fuel according to claim 24, wherein the cycloparaffinic hydrocarbons cut (B3) is essentially constituted by cyclohexanes.

26. (New) A fuel according to claim 24, wherein the level of cyclohexanes in the cycloparaffinic hydrocarbons cut (B3) is greater than 80% and preferably greater than 90% by mass.

27. (New) A fuel according to claim 18, wherein the first isoparaffinic hydrocarbons cut (B1) is essentially constituted by isoparaffins with eight carbon atoms.

28. (New) A fuel according to claim 27, wherein the level of the isoparaffinic hydrocarbons cut (B1) with eight carbon atoms is greater than 40% by volume.

29. (New) A fuel according to claim 28, wherein the level of the isoparaffinic hydrocarbons cut (B1) with eight carbon atoms is greater than 43% by volume.

30. (New) A fuel according to claim 28, wherein the isoparaffinic hydrocarbons containing eight carbon atoms are isoctanes.

31. (New) A fuel according to claim 28, wherein the isoparaffinic hydrocarbons containing eight carbon atoms are isoctanes.

32. (New) A fuel according to claim 29, wherein the isoparaffinic hydrocarbons containing eight carbon atoms are isoctanes.

33. (New) A fuel according to claim 27, wherein the level of isoctanes in the isoparaffinic hydrocarbons cut (B1) with eight carbon atoms is greater than 70% by mass.

34. (New) A fuel according to claim 33, wherein the level of isooctanes in the isoparaffinic hydrocarbons cut (B1) with eight carbon atoms is greater than 75% by mass.

35. (New) A fuel according to claim 18, wherein the second isoparaffinic hydrocarbons cut (B2) is essentially constituted by isoparaffins with five carbon atoms.

36. (New) A fuel according to claim 19, wherein the second isoparaffinic hydrocarbons cut (B2) is essentially constituted by isoparaffins with five carbon atoms.

37. (New) A fuel according to claim 20, wherein the second isoparaffinic hydrocarbons cut (B2) is essentially constituted by isoparaffins with five carbon atoms.

38. (New) A fuel according to claim 35, wherein the isoparaffinic hydrocarbons containing five carbon atoms are isopentanes.

39. (New) A fuel according to claim 38, wherein the level of isopentanes in the isoparaffinic hydrocarbons cut (B2) with five carbon atoms is greater than 85% by mass.

40. (New) A fuel according to claim 39, wherein the level of isopentanes in the isoparaffinic hydrocarbons cut (B2) with five carbon atoms is greater than 90% by mass.

41. (New) A fuel according to claim 35, wherein the isoparaffinic hydrocarbons cut containing 5 carbon atoms is replaced by a cut constituted by hydrocarbons containing 4 carbon atoms.

42. (New) A fuel according to claim 18, wherein its level of aromatic compounds is less than 10% by volume and preferably less than 5% by volume.

43. (New) A fuel according to claim 18, wherein its benzene content is less than 0.2% by volume.

44. (New) A fuel according to claim 43, wherein its benzene content is less than 0.1% by volume.

45. (New) A fuel according to claim 42, wherein its benzene content is less than 0.2% by volume.

46. (New) A fuel according to claim 45, wherein its benzene content is less than 0.1% by volume.

47. (New) Use of the fuel according to claim 18, to feed, alone or in mixture, spark-ignition engines of aircraft.

48. (New) Use of the fuel according to claim 18, to feed, alone or in mixture, spark ignition engines of competition or similar vehicles.

49. (New) Use of the fuel according to claim 18, to feed, alone or in mixture, a fuel treatment unit, such as a reformer, coupled to a fuel cell.